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NETWORK ELEMENTS**

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ATTACHMENT III

NETWORK ELEMENTS

Section 1. Introduction

1.1 Bell Atlantic shall provide unbundled Network Elements in accordance with this Agreement and Applicable Law. The price for each Network Element is set forth in Attachment I of this Agreement. Except as otherwise set forth in this Attachment, MCIIm may order Network Elements as of the Effective Date. The obligations set forth in this Attachment III shall apply to such Network Elements: (i) available when this Agreement becomes effective; (ii) that subsequently become available; and (iii) in all cases to those features, functions, Combinations, and capabilities, the provision of which is Technically Feasible at such time as they are incorporated in unbundled Network Elements offered by Bell Atlantic.

Section 2. Unbundled Network Elements

2.1 Bell Atlantic shall offer Network Elements to MCIIm on an unbundled basis on rates, terms and conditions that are just, reasonable, and Non-Discriminatory in accordance with the terms and conditions of this Agreement.

2.2 Bell Atlantic shall permit MCIIm to connect MCIIm's facilities or facilities provided to MCIIm by third-parties with each of Bell Atlantic's unbundled Network Elements at those generic points within Bell Atlantic's network, designated within this Agreement or as a result of the Bona Fide Request ("BFR") process.

2.3 MCIIm may use one or more Network Elements to provide features, functions, or, capabilities that such Network Element(s) provide as of the date hereof in Bell Atlantic's network, or as may otherwise be agreed upon through the BFR process.

2.3.1 MCIIm may, at its option, select methods of access to unbundled elements, as described in this Agreement, or as may otherwise be agreed upon through the BFR process.

2.4 Bell Atlantic shall offer each Network Element individually and in Combinations (where Technically Feasible), solely in order to permit MCIIm to provide Telecommunications Services to its subscribers.

2.5 For each Network Element, Bell Atlantic shall provide connectivity at a point which is agreeable to both Parties. However, where Bell Atlantic provides combined Network Elements at MCIIm's request, no connectivity point between the Parties shall exist between such contiguous Network Elements.

2.6 This Attachment describes the initial set of Network Elements which MCI and Bell Atlantic have identified as of the Effective Date of this Agreement:

- Loop
- Network Interface Device
- Local Switching
- Operator Systems
- Common Transport
- Dedicated Transport
- Signaling Link Transport
- Signaling Transfer Points
- Service Control Points/Databases
- Tandem Switching
- Directory Assistance

2.6.1 MCI and Bell Atlantic agree that the Network Elements identified in this Attachment may prove not to be all possible Network Elements.

2.6.2 MCI may identify additional or revised Network Elements as necessary to provide Telecommunications Services to its subscribers, to improve network or service efficiencies or to accommodate changing technologies, subscriber demand, or other requirements.

2.6.2.1 MCI will request any such Network Elements in accordance with the BFR process described in Section 25 (BFR Process for Further Unbundling) of Part A. Additionally, if Bell Atlantic provides any Network Element that is not identified in this Agreement to another CLEC pursuant to an approved Interconnection Agreement, Bell Atlantic shall make available the same Network Element to MCI under the same terms, and conditions, as required by 47 U.S.C. Section 252(i).

Section 3. Technical Standards and Technical Specifications for Network Elements

3.1 Each Network Element shall be furnished at the service levels included in this Agreement and in accordance with the performance standards required in this Agreement.

3.2 Each Network Element provided by Bell Atlantic to MCI, unless identified differently in this Agreement, shall be provided at Parity and in a Non-Discriminatory manner in the areas of: quality of design, performance, features, functions, capabilities and other characteristics, including but not limited to levels and types of redundant equipment and facilities for power, diversity and security, that Bell Atlantic provides to itself (where applicable and Technically Feasible), Bell Atlantic's own subscribers (where applicable and Technically Feasible), to a Bell Atlantic Affiliate, or to any other entity, as set forth in the FCC Rules and Regulations, as the same may be amended from time to time.

3.2.1 Bell Atlantic shall provide to MCI, upon reasonable request, reasonably available engineering, design, performance and other network data sufficient for MCI to determine that the requirements of this Section 3 are being met. In the event that such data indicates that the requirements of this Section 3 are not being met, the Parties shall in good faith endeavor to address the issue at the network operations supervisor level, and if necessary, employ the escalation procedure of Section 15.1.2.

3.2.2 Bell Atlantic agrees to work cooperatively with MCI to ensure that the Network Elements that are provided pursuant to this Agreement will meet MCI's reasonable needs in providing services to its subscribers.

3.3 Unless otherwise requested by MCI, each Network Element and the connections between Network Elements provided by Bell Atlantic to MCI shall be made available to MCI at Parity and in a Non-Discriminatory manner at the points identified in this Agreement, or additional points made available through the BFR process.

Section 4. Loop

4.1 Definition:

4.1.1 Unbundled Local Loop ("ULL") means a transmission path that extends from the vertical side of a main distribution frame, DSX-panel, or functionally comparable piece of equipment in the subscriber's serving End Office to the Network Rate Demarcation Point (or Network Interface Device ("NID") if installed) in or at a subscriber's premises. The actual loop transmission facilities used to provide a ULL may utilize any of several technologies.

4.1.2 Subject to Part A, Section 29 (Facilities), Bell Atlantic shall allow MCI access to the following ULLs (in addition to those ULLs available under applicable Tariffs) including without limitation unbundled from Local Switching and local transport in accordance with the terms and conditions set forth in this Section 4.

4.1.2.1 2-wire analog voice grade ULL or analog 2W provides an effective 2-wire channel with 2-wire interfaces at each end that is suitable for the transport of analog voice grade (nominal 300 to 3000 Hz) signals and loop-start signaling. The service is more fully described at Exhibit A of this Attachment III.

4.1.2.2 4-wire analog voice grade ULL or analog 4W provides an effective 4-wire channel with 4-wire interfaces at each end that is suitable for the transport of analog voice grade (nominal 300 to 3000 Hz) signals. The service will operate with one of the following signaling types that may be specified when the service is ordered: loop-start, ground-start, loop-

reverse-battery, duplex, and no signaling. The service is more fully described in Exhibit B of this Attachment III.

4.1.2.3 2-wire ISDN digital grade ULL or BRI ISDN provides a channel with 2-wire interfaces at each end that is suitable for the transport of 160 kbps digital services using the ISDN 2B1Q line code. The service is more fully described in Exhibit C of this Attachment III.

4.1.2.4 4-wire DS-1 compatible ULL provides a channel with 4-wire interfaces at each end. Each 4-wire channel is suitable for the transport of 1.544 mbps digital signals simultaneously in both directions using PCM line code. DS-1 compatible ULLs will be available where existing copper facilities can meet the specifications. The service is more fully described in Exhibit C of this Attachment III.

4.1.2.5 ULLs will be offered on the terms and conditions specified herein and on such other terms in applicable Tariffs that are not inconsistent with the terms and conditions set forth herein.

4.1.3 If Bell Atlantic uses integrated digital loop carrier ("DLC") systems to provide the local loop, Bell Atlantic will make alternate arrangements if available, meeting the requirements of this Section 4, to permit MCI to order an existing contiguous ULL with the same provisioning intervals at no additional cost to MCI. These arrangements may, at Bell Atlantic's option, include the following: provide MCI with copper facilities or universal DLC that are acceptable to MCI. Additional arrangements, such as deployment of Virtual Remote Terminals, or allowing MCI to purchase the entire DLC, are subject to the BFR procedures of Section 25 of Part A of this Agreement.

4.2 Loop Components

MCI may, at its option, raise the issue of subloop unbundling (other than NID unbundling, which is addressed in Section 5 of this Attachment III) either through the BFR procedure set forth in Section 25 of Part A of this Agreement, or by cooperating with Bell Atlantic in the design and implementation of a subloop unbundling technical and operational trial. Loop components may include, but are not limited to, the following:

4.2.1 Loop Concentrator/Multiplexer

4.2.2 Loop Feeder

4.2.3 Loop Distribution

Section 5. Network Interface Device

5.1 Definition:

5.1.1 "Network Interface Device" or "NID" means the Bell Atlantic provided interface terminating Bell Atlantic's Telecommunications network on the property where the subscriber's service is delivered at a point determined by Bell Atlantic. The NID contains a FCC Part 68 registered jack from which inside wire may be connected to Bell Atlantic's network.

5.1.2 Bell Atlantic shall permit MCIIm to connect MCIIm's loop to the inside wiring of a subscriber's premises through Bell Atlantic's NID in the manner set forth in Section 5.2 herein.

5.2 Access to Network Interface Device

5.2.1 Due to the wide variety of NIDs utilized by Bell Atlantic (based on subscriber size and environmental considerations), MCIIm may access the subscriber's inside wire by any of the following means:

5.2.1.1 Bell Atlantic shall allow MCIIm to connect its loops directly to Bell Atlantic's multi-line residential NID enclosures that have additional space and are not used by Bell Atlantic or any other Telecommunications Carrier to provide service to the premise. MCIIm agrees to install compatible protectors and test jacks, to maintain the protection system and equipment and to indemnify Bell Atlantic pursuant to Part A of this Agreement.

5.2.1.2 In all other cases, MCIIm must establish the connection to Bell Atlantic's NID through an adjoining NID deployed by MCIIm.

5.2.1.2.1 Where an adequate length of inside wire is present and environmental conditions permit, and with the subscriber authorization required by this Agreement and Applicable Law, either Party may remove the inside wire from the other Party's NID and connect that wire to that Party's own NID; or

5.2.1.2.2 Enter the subscriber access chamber or "side" of "dual chamber" NID enclosures for the purpose of extending a connectorized or spliced jumper wire from the inside wire through a suitable "punch-out" hole of such NID enclosures; or

5.2.1.2.3 Request Bell Atlantic to make other rearrangements to the inside wire terminations or terminal enclosure on a time and materials cost basis to be charged to the requesting Party (i.e.,

MCIm, its agent, the building owner or the subscriber). Such charges will be billed to the requesting Party.

5.2.1.3 In no case shall MCIm remove or disconnect Bell Atlantic's loop facilities from Bell Atlantic's NIDs, enclosures, or protectors.

5.2.1.4 In no case shall MCIm remove or disconnect ground wires from Bell Atlantic's NIDs, enclosures, or protectors.

5.2.1.5 In no case shall MCIm remove or disconnect NID modules, protectors, or terminals from Bell Atlantic's NID enclosures.

5.2.1.6 Maintenance and control of premises wiring (inside wire) is the responsibility of the subscriber. Any conflicts between service providers for access to the subscriber inside wire must be resolved by the subscriber.

5.2.1.7 Due to the wide variety of NID enclosures and outside plant environments, Bell Atlantic will work with MCIm to develop specific procedures to establish the most effective means of implementing this Section 5.2.

5.3 Technical Requirements

5.3.1 The NID shall provide an accessible point of connection for the subscriber-owned inside wiring, for Bell Atlantic's facilities, for the distribution media and/or cross connect to MCIm's NID, and shall maintain a connection to ground.

5.3.2 The NID shall be capable of transferring electrical analog or digital signals between the subscriber's inside wiring and the distribution media and/or cross connect to MCIm's NID, consistent with the NID's function at the Effective Date of this Agreement.

5.3.3 Where a Bell Atlantic NID exists, it is provided in its "as is" condition. MCIm may request Bell Atlantic do additional work to the NID in accordance with Section 5.2.1.2.3.

5.4 Interface Requirements

5.4.1 Where an existing Bell Atlantic NID is installed, the NID shall be the interface to subscribers' premises wiring for the existing loop technology at that premises.

Section 6. Distribution

MCIm may, at its option, raise the issue of distribution unbundling through the BFR procedure set forth in Section 25 of Part A of this Agreement.

Section 7. Local Switching

7.1 Definition:

7.1.1 Local Switching is the Network Element that provides MCIIm the ability to use switching functionality in a Bell Atlantic end office switch, including all vertical services and/or features that Bell Atlantic already provides, or provides in the future pursuant to the BFR process set forth in Part A, Section 25, out of that switch. MCIIm may request modifications to the switching functionality, including the vertical services and/or features, available in a Bell Atlantic end office switch pursuant to the BFR process set forth in Part A, Section 25. Local Switching will be provisioned with a port element, which provides line or trunk side access to Local Switching.

7.1.2 Port element or port means a line card (or equivalent) and associated peripheral equipment on an end office switch which serves as the interconnection between individual loops or individual subscriber trunks and the switching components of an end office switch and the associated switching functionality in that end office switch. Each port is typically associated with one (or more) telephone number(s) which serves as the subscriber's network address. The port element is part of the provision of Local Switching.

7.1.3 Local Switching includes line side and trunk side facilities plus the features, functions, and capabilities of the switch, as set forth in Section 7.1.1. It consists of the line-side port (including connection between a loop termination and a switch line card, telephone number assignment, one primary Directory Listing, presubscription, and access to 911, Operator Services, basic intercept, and Directory Assistance), line and line group features (including appropriate vertical features and line blocking options), usage (including the connection of lines to lines, lines to trunks, trunks to lines, and trunks to trunks), and trunk features (including the connection between the trunk termination and a trunk card). Components of Local Switching, to the extent that they are separately charged, shall be charged at the rates set forth in Attachment I.

7.1.4 Bell Atlantic shall offer, as an optional chargeable feature, daily usage tapes that include the "to and from" number, start time, and stop time, by line port, for all recorded local, access, and toll usage. MCIIm may request activation or deactivation of features on a per port basis at any time, and shall compensate Bell Atlantic for the non-recurring charges associated with processing the order.

7.2. Technical Requirements

7.2.1 Bell Atlantic shall route calls to the appropriate trunk or lines for call origination or termination.

7.2.2 Where Technically Feasible, Bell Atlantic will offer Specialized Routing for Local Switching lines and for lines provided to MCIIm under Local Resale. Bell Atlantic's initial deployment of Specialized Routing will route Directory Assistance and Operator Services calls (*i.e.*, 411, 555-1212, 0-, 0+local) to: (i) Bell Atlantic provided platforms; (ii) MCIIm designated platforms; or (iii) third-party platforms. Due to the constraints of the various switches in place in the Bell Atlantic service region, Bell Atlantic will implement a hybrid network solution for Specialized Routing. The hybrid solution encompasses three different technologies: Bell Atlantic's Common Channel Signaling Network/Advanced Intelligent Network (CCSN/AIN) and, for those office and call types not supported by AIN, Specialized Routing Nodes and/or line class codes. The Combinations of switch types, call types, and technology solutions currently available are identified in Exhibit D of this Attachment III. Exhibit D is subject to modification upon reasonable prior notification to MCIIm. The following terms and conditions apply to Specialized Routing service:

7.2.2.1 If MCIIm elects the wholesale discount for Local Resale which does not include Bell Atlantic Directory Assistance and Operator Services, MCIIm must request Specialized Routing for all End Offices where they elect to resell Bell Atlantic retail Telecommunications Services using this wholesale discount.

7.2.2.2 Specialized Routing will be activated for all MCIIm Local Resale and Local Switching end user lines and for all applicable call types (*i.e.*, 411, 555-1212, 0-, 0+local) in a requested End Office.

7.2.2.3 MCIIm is responsible for establishing the necessary transport to carry the rerouted calls to its Operator Services platform(s). Trunks will be required for traffic rerouted from the originating End Office and for traffic rerouted from the Specialized Routing Node. Bell Atlantic-supplied Dedicated Transport is available for use with Specialized Routing, where facilities are available, in which case rates and charges for such transport will apply in addition to the rates and charges for Specialized Routing.

7.2.2.4 If the necessary trunks are not in place once a subscriber has been converted to MCIIm's local service, then the end user customer will receive a re-order tone.

7.2.2.5 Traffic rerouted via the Specialized Routing Nodes will be handed-off to MCIIm at a Point of Interconnection in the originating LATA.

7.2.2.6 Implementation of Specialized Routing will begin in the requested End Offices in the State no later than ninety (90) days after the beginning of the implementation interval, and will be finished for all requested End

Offices in a State within one hundred eighty (180) days after the beginning of the implementation interval. The implementation interval for Specialized Routing will begin upon receipt by Bell Atlantic of a list of the End Offices from which MCI wishes to purchase Specialized Routing service.

7.2.2.7 Certain classes of service and/or line types are not supported by AIN-based Specialized Routing. These exceptions, identified in Exhibit E of this Attachment III, will be addressed by Bell Atlantic on a case-by-case BFR basis at MCI's request. Additional charges will apply for the development and implementation of the network solution(s) used to address these exceptions. Exhibit E of this Attachment III is subject to modification upon reasonable prior notification to MCI.

7.2.2.8 Due to the use of AIN technology for Specialized Routing, some existing and future AIN-based services may not work with Local Resale lines that employ Specialized Routing. Exhibit E of this Attachment III lists AIN services that are currently known to conflict with Specialized Routing.

7.2.3 Bell Atlantic shall provide standard recorded announcements at Parity.

7.2.4 Where requested by MCI, Bell Atlantic will attempt to change a subscriber from Bell Atlantic's services to MCI's services without loss of feature availability and functionality. However, dependent on the technical arrangements MCI chooses to use to provide their end user services, some feature interaction conflicts and resulting loss of feature availability and functionality may result.

7.2.5 For unbundled Bell Atlantic switching in Combination with an unbundled Bell Atlantic loop, Bell Atlantic shall perform routine testing (e.g., mechanized loop tests ("MLT")) at Parity upon receipt of a trouble report from MCI.

7.2.6 Bell Atlantic shall repair, restore and maintain Bell Atlantic provided equipment that has produced trouble conditions, at Parity and in a Non-Discriminatory manner, to minimize recurrence of trouble conditions in MCI's use of Local Switching.

7.2.7 Bell Atlantic shall control congestion points such as mass calling events, and network routing abnormalities, using capabilities such as automatic call gapping, automatic congestion control, and network routing overflow at Parity and in a Non-Discriminatory manner.

7.2.8 Bell Atlantic shall record billable events, involving usage of the element, and send the appropriate recording data to MCI as outlined in Attachment VIII.

7.2.9 Unbundled switching will include 911 access on the same basis as such access is provided in Bell Atlantic's network.

7.2.10 Bell Atlantic shall provide switching service point ("SSP") capabilities and signaling software to interconnect the signaling links destined to Bell Atlantic STPs at Parity. In the event that Local Switching is provided out of a switch without SS7 capability, and Bell Atlantic unbundled Common Transport is purchased for use with Bell Atlantic's unbundled switching, Bell Atlantic's Tandem Office Switches shall provide this capability at Parity.

7.2.11 Bell Atlantic shall provide interfaces to Adjunct Equipment, which interfaces are identified in this Agreement, at Parity. Bell Atlantic shall provide interfaces to any other Adjunct Equipment at Parity pursuant to the BFR process.

7.2.12 From time to time MCIIm may request that Bell Atlantic provide unique reports of reasonable performance data regarding a subscriber line, traffic characteristics, or other reasonable elements. To the extent that such reports exceed that which Bell Atlantic provides itself or its subscribers, MCIIm shall pay reasonable charges for such reports.

7.2.13 Bell Atlantic shall assign each MCIIm subscriber line an unbundled switching class of service. MCIIm may request and Bell Atlantic will provide call blocking options (e.g., 900, 976) at Parity.

7.3 Interface Requirements:

7.3.1 Bell Atlantic shall provide the following unbundled switching interfaces:

Analog Basic (POTS) - line side, loop start or ground start signaling
Analog CENTREX - line side, loop start or ground start signaling
Analog PBX - line side, loop start or ground start signaling

Analog DID - trunk side, loop reverse-battery signaling, associated with a PBX
DS1 (DID) - trunk side, associated with a PBX
DS1 (IOF) - trunk side, associated with dedicated unbundled transport

These services will be more fully described in Exhibits F and G of this Attachment III. Additional interfaces may be developed in accordance with the BFR process set forth in Section 25 of Part A of this Agreement.

7.3.2 Bell Atlantic shall offer access to the following at Parity:

7.3.2.1 SS7 signaling or multi-frequency trunking;

7.3.2.2 Interface to MCI or Bell Atlantic Operator Services systems through the use of Specialized Routing, as appropriate;

7.3.2.3 Interface to MCI or Bell Atlantic Directory Assistance Services through the use of Specialized Routing, as appropriate; and

7.3.2.4 Access to other third-party carriers.

7.4 Integrated Services Digital Network ("ISDN")

Implementation of the first customer application of unbundled ISDN switching will require technical and operational coordination and testing by MCI and Bell Atlantic to ensure that the requirements set forth in this section can be met. Should any of these requirements prove technically infeasible, the Parties shall cooperate to determine the requirements applicable to the unbundled service.

7.4.1 Technical Requirements — ISDN

7.4.1.1 Bell Atlantic shall offer data switching providing ISDN that, at a minimum:

7.4.1.1.1 Provides integrated packet handling capabilities at Parity;

7.4.1.1.2 Allows for full 2B+D channel functionality for BRI at Parity; and

7.4.1.1.3 Allows for full 23B+D channel functionality for PRI at Parity.

7.4.1.1.4 Each B channel shall allow for voice, 64 Kbps CSD, and PSD of 128 logical channels at minimum speeds of 19 Kbps throughput of each logical channel up to the total capacity of the B channel.

7.4.1.1.5 Each B channel shall provide capabilities for alternate voice and data on a per call basis.

7.4.1.1.6 The BRI D channel shall allow for call associated signaling, non-call associated signaling and PSD of 16 logical channels at minimum speeds of 9.6 Kbps throughput of each logical channel up to the total capacity of the D channel.

7.4.1.1.7 The PRI D channel shall allow for call associated signaling.

7.4.2 Interface Requirements — ISDN

7.4.2.1 Bell Atlantic shall provide the BRI U interface using 2-wire copper loops in accordance with TR-NWT-000393, January 1991, *Generic Requirements for ISDN Basic Access Digital Subscriber Lines*.

7.4.2.2 Bell Atlantic shall provide the BRI interface using digital subscriber loops adhering to Bellcore TR-NWT-303 specifications to interconnect DLCs.

7.4.2.3 Bell Atlantic shall offer PSD interfaces adhering to the X.25, X.75 and X.75' ANSI and Bellcore requirements.

7.4.2.4 Bell Atlantic shall offer PSD trunk interfaces operating at 56 kbps.

Section 8. Operator Systems

See Attachment VIII, Section 6.1.2 Directory Assistance Service and 6.1.3 Operator Service.

Section 9. Common Transport

9.1 Definition:

9.1.1 Common Transport consists of interoffice transmission paths between Bell Atlantic Network Elements (illustrated in Figure 1) shared by carriers. Common Transport consists of Bell Atlantic inter-office transport facilities and is distinct and separate from Local Switching. Common Transport routes the call between two Bell Atlantic switches using the existing route(s) that are used by the Bell Atlantic network for Bell Atlantic's end users.



Figure 1

9.2 Technical Requirements

9.2.1 Bell Atlantic shall be responsible for the engineering, provisioning, and maintenance of the underlying equipment and facilities that are used to provide Common Transport.

Section 10. Dedicated Transport

10.1 Definition:

10.1.1 Dedicated Transport is an interoffice transmission path of a fixed capacity between MCI designated locations to which MCI is granted exclusive use. Such locations may include Bell Atlantic Central Offices, other Telecommunication Carrier locations, subscriber premises, or other mutually agreed locations. Dedicated Transport is depicted below in Figure 2.

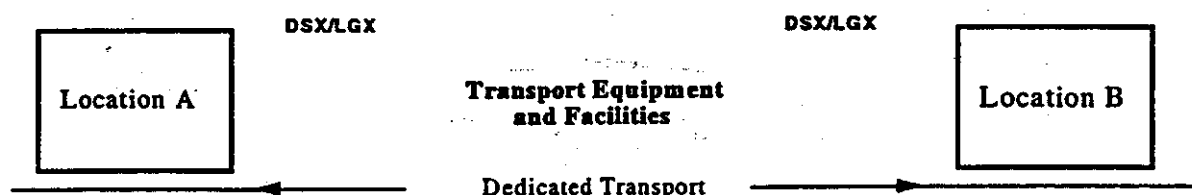


Figure 2

10.1.2 Bell Atlantic shall offer Dedicated Transport as a circuit (e.g., DS0 (voice grade), DS1, STS1 (when available) and DS3) dedicated to MCI.

10.1.3 When Dedicated Transport is provided as a circuit, it will have available (as appropriate):

10.1.3.1 Optional multiplexing functionality;

10.1.3.2 Grooming functionality in accordance with Section 10.3 herein; and,

10.1.3.3 Redundant equipment and facilities necessary to support protection and restoration at Parity and in a Non-Discriminatory manner.

10.2 Technical Requirements

This Section sets forth technical requirements for all Dedicated Transport.

10.2.1 Dedicated Transport shall provide physical diversity at Parity.

10.2.2 MCI may request that Bell Atlantic provide additional physical diversity. Bell Atlantic will provide such physical diversity where it is available, at Bell Atlantic's prevailing additional charge, if any. If physical diversity is not reasonably available in response to MCI's request, then MCI may order such additional physical diversity by submitting a request for special construction.

10.2.3 Dedicated Transport shall include DSX terminations at one or both ends, as applicable, in Bell Atlantic's Central Office location.

10.2.4 Bell Atlantic shall offer DCS and multiplexing, both together with and separately from Dedicated Transport.

10.3 Digital Cross Connect System ("DCS")

10.3.1 Definition:

10.3.1.1 DCS is a device which provides electronic cross-connection of digital signal level 0 ("DS0") or higher transmission bit rate digital channels within physical interface facilities. Types of DCSs include but are not limited to DCS 1/0s, where the nomenclature 1/0 denotes interfaces typically at the DS1 rate or greater with cross-connection typically at the DS0 rate.

10.3.2 DCS Technical Requirements

10.3.2.1 DCS shall provide cross connection of the channels designated by MCIIm, either through service orders or by using Bell Atlantic's Intellimux capabilities.

10.3.2.2 Bell Atlantic shall continue to administer and maintain DCS, including updates to the control software to current available releases, at Parity.

10.3.2.3 Bell Atlantic shall provide various types of Digital Cross Connect Systems including:

10.3.2.3.1 DS0 cross connects (typically termed DCS 1/0).

10.3.2.3.2 Additional DCS types shall be requested in accordance with the BFR process set forth in Section 25 of Part A of this Agreement.

10.3.2.4 Through Bell Atlantic's Intellimux service capabilities, Bell Atlantic shall provide immediate and continuous configuration and reconfiguration of the channels between the physical interfaces (*i.e.*, Bell Atlantic shall establish the processes to implement cross connects on demand, or permit MCIIm control of such configurations and reconfigurations).

10.3.2.5 Through Bell Atlantic's Intellimux service capabilities, Bell Atlantic shall provide scheduled configuration and reconfiguration of the

channels between the physical interfaces (*i.e.*, Bell Atlantic shall establish the processes to implement cross connects on the schedule designated by MCIIm, or permit MCIIm to control such configurations and reconfigurations).

10.3.2.6 DCS shall continuously monitor protected circuit packs and redundant common equipment at Parity.

10.3.2.7 DCS shall automatically switch to a protection circuit pack on detection of a failure or degradation of normal operation at Parity.

10.3.2.8 The equipment used to provide DCS shall be equipped with a redundant power supply or a battery back-up at Parity.

10.3.2.9 Bell Atlantic shall make available for DCSs handling MCIIm services spare facilities and equipment at Parity, necessary for provisioning repairs.

10.3.2.10 Through Bell Atlantic's Intellimux service capabilities, at MCIIm's option, Bell Atlantic shall provide MCIIm currently available performance monitoring and alarm data.

10.3.2.11 At MCIIm's option, Bell Atlantic shall provide MCIIm with the ability to initiate tests on DCS equipment. This will require MCIIm to provide additional facilities from the DCS, back to MCIIm's test center. The DCS can then be used to connect MCIIm's test center ports to other MCIIm circuits.

10.3.2.12 Where available, DCS shall provide multipoint bridging of multiple channels to other DCSs. MCIIm may designate multipoint bridging to be one-way broadcast from a single master to multiple tributaries, or two-way broadcast between a single master and multiple tributaries.

10.3.2.13 DCS shall multiplex lower speed channels onto a higher speed interface and demultiplex higher speed channels onto lower speed interfaces as designated by MCIIm.

Section 11. Signaling Link Transport

11.1 Definition:

11.1.1 Bell Atlantic's CCS Access Service ("CCSAS") allows interconnected carriers to exchange signaling information over a communications path which is separate from the message path. The transport portion of CCSAS is provided via

a discreetly rated dedicated 56 kbps out of band signaling connection between the carrier's Signaling Point of Interconnection ("SPOI") and Bell Atlantic's STP.

11.1.2 Each CCSAS signaling connection provides for two-way digital transmission at speeds of 56 kbps. The connection to Bell Atlantic's STP pair can be made from either the carrier's signaling point ("SP"), which requires a minimum of two 56 kbps circuits, or from the carrier's STP pair, which requires a minimum of four (4) pairs of 56 kbps circuits.

11.1.3 STP locations are set forth in National Exchange Carrier Association ("NECA") Tariff F.C.C. No. 4. Carriers ordering CCSAS are subject to the technical requirements specified in Bell Atlantic Tariff F.C.C. No. 1, Sections 2.3.9.1, 2.3.10 (B) (9) and 2.3.10 (9). Testing and certification reference documentation shall be pursuant to Bell Atlantic Tariff F.C.C. No. 1, Section 6.4.3 (A).

11.1.4 Each Party shall provide the other Party with access to databases and associated signaling necessary for call routing and completion by providing SS7 CCS interconnection in accordance with existing Tariffs, and interconnection and access to toll free databases, LIDB, and any other necessary databases in accordance with existing Tariffs and/or agreements with other unaffiliated carriers. Alternatively, either Party may secure CCS Interconnection from a commercial SS7 hub provider, and in that case the other Party will permit the purchasing Party to access the same databases as would have been accessible if the purchasing Party had connected via SS7 CCS directly to the other Party's CCS network.

11.1.5 Bell Atlantic shall permit MCI to access Bell Atlantic's LIDB to validate calling card numbers and requests for bill-to-third-party or collect billing. Bell Atlantic shall provide LIDB access at Parity and in a Non-Discriminatory manner by a SS7 formatted data query before call completion to determine the validity of the billing method requested by the caller. LIDB will respond with a SS7 formatted confirmation of validity or denial of the requested billing option.

11.1.6 The Parties will provide CCS Signaling to one another, where and as available, in conjunction with all local traffic, toll traffic, meet point billing traffic, and transit traffic. The Parties will cooperate on the exchange of TCAP messages to facilitate interoperability of CCS-based features between their respective networks, including all CLASS features and functions, to the extent each Party offers such features and functions to its subscribers. All CCS signaling parameters will be provided upon request (where available), including called party number, Calling Party Number, originating line information, calling party category, and Charge Number. All privacy indicators will be honored. The Parties will follow all relevant OBF adopted standards pertaining to CIC/OZZ codes. Where CCS Signaling is not available, in-band multi-frequency ("MF")

wink start signaling will be provided. Any such MF arrangement will require a separate local trunk circuit between the Parties' respective Switches. In such an arrangement, each Party will output the full ten-digit telephone number of the called party to the other party with appropriate call set-up and ANI where available, at Parity.

11.1.7 The following publications describe the practices, procedures and specifications generally utilized by Bell Atlantic for signaling purposes and is listed herein to assist the Parties in meeting their respective interconnection responsibilities related to signaling:

11.1.7.1 Bellcore GR-905-CORE, Issue 1, March 1995, and subsequent issues and revisions;

11.1.7.2 Bell Atlantic Supplement Common Channel Signaling Network Interface Specification, Bell Atlantic-905, December 1990; Issue, Supplement 1, June 1992; Supplement 2, August 1992; Supplement 3, January 1993; and

11.1.7.3 Bell Atlantic AIN SMS Network Disclosure (Date: December 1996, on Bell Atlantic World Wide Web site).

11.1.8 Each Party shall charge the other Party mutual and reciprocal rates for CCS Signaling as follows: Bell Atlantic shall charge MCIIm in accordance with Attachment I hereto and applicable Tariffs; MCIIm shall charge Bell Atlantic rates equal to the rates Bell Atlantic charges MCIIm, unless MCIIm's Tariffs for CCS signaling provide for lower generally available rates, in which case MCIIm shall charge Bell Atlantic such lower rates.

11.1.9 MCIIm must meet interconnection certification testing requirements of the SS7 network before interconnection is permitted, and also before changes occur within the MCIIm SS7 network.

Section 12. Signaling Transfer Points ("STPs")

12.1 Definition:

12.1.1 Bell Atlantic's CCSAS allows interconnected carriers to exchange signaling information over a communications path which is separate from the message path. The discretely rated network termination point where this interconnection takes place is called the Bell Atlantic STP port termination. Figure 3 depicts STPs.

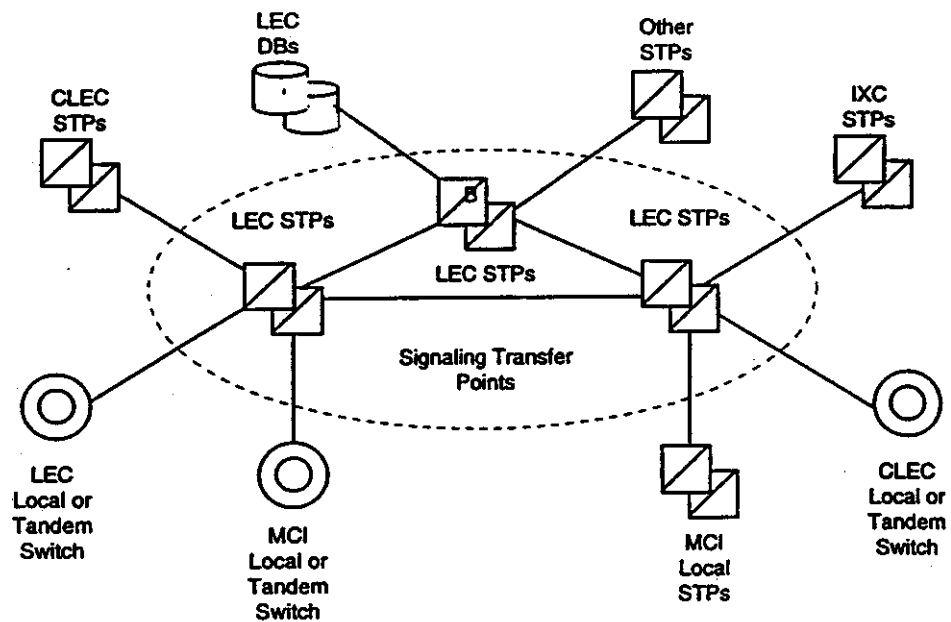


Figure 3

12.1.2 Each CCSAS signaling connection provides for two-way digital transmission at speeds of 56 kbps. The connection to Bell Atlantic's STP pair can be made from either the carrier's STP, which requires a minimum of two (2) 56 kbps circuits, or from the carrier's STP pair, which requires a minimum of four (4) pairs of 56 kbps circuits.

12.1.3 STP locations are set forth in National Exchange Carrier Association ("NECA") Tariff F.C.C. No. 4. Carriers ordering CCSAS are subject to the technical requirements specified in Bell Atlantic Tariff F.C.C. No. 1, Sections 2.3.9.1, 2.3.10 (B) (9) and 2.3.10 (9). See Bell Atlantic Tariff F.C.C. No. 1, Section 6.4.3 (A) for testing and certification reference documentation).

12.2 Technical Requirements

12.2.1 STPs shall provide access to all other Network Elements connected to the Bell Atlantic network. These include:

12.2.1.1 Bell Atlantic Local Switching or Tandem Switching;

12.2.1.2 Bell Atlantic Service Control Points/databases;

12.2.1.3 Third-party local or Tandem Switching systems; and

12.2.1.4 Third-party-provided STPs.

12.2.2 The connectivity provided by STPs shall fully support the functions of all other Network Elements connected to the Bell Atlantic SS7 network. This explicitly includes the use of the Bell Atlantic SS7 network to convey messages which neither originate nor terminate at a signaling end point directly connected to the Bell Atlantic SS7 network (*i.e.*, transit messages): When the Bell Atlantic SS7 network is used to convey transit messages, there shall be no alteration of the integrated services digital network user part ("ISDNUP") or Transaction Capabilities Application Part ("TCAP") user data that constitutes the content of the message.

12.2.3 If a Bell Atlantic Tandem Switch routes calling traffic, based on dialed or translated digits, on SS7 trunks between an MCIIm local Switch and third-party local Switch, Bell Atlantic's SS7 network shall convey the TCAP messages that are necessary to provide call management features (automatic callback, automatic recall, and screening list editing) between the MCIIm local STPs and the STPs that provide connectivity with the third-party local Switch, even if the third-party local Switch is not directly connected to Bell Atlantic's STPs, providing that the third-party Switch is located in the same LATA.

12.2.4 In cases where the destination signaling point is a Bell Atlantic local or Tandem Switching system or database, or is an MCIIm or third-party local or Tandem Switching system directly connected to Bell Atlantic's SS7 network, Bell Atlantic STPs shall perform final GTT of messages to the destination and SCCP Subsystem Management of the destination. In all other cases, STPs shall perform intermediate GTT of messages to a gateway pair of STPs in an SS7 network connected with the Bell Atlantic SS7 network, and shall not perform SCCP subsystem management of the destination.

12.3 Interface Requirements

12.3.1 Bell Atlantic shall provide the following STPs options to connect MCIIm or MCIIm-designated Local Switching systems or STPs to the Bell Atlantic SS7 network:

12.3.1.1 An A-link interface from MCIIm Local Switching systems; and,

12.3.2 Each type of interface shall be provided by one or more sets (layers) of signaling links, as follows:

12.3.2.1 An A-link layer shall consist of two links, as depicted in Figure 4.

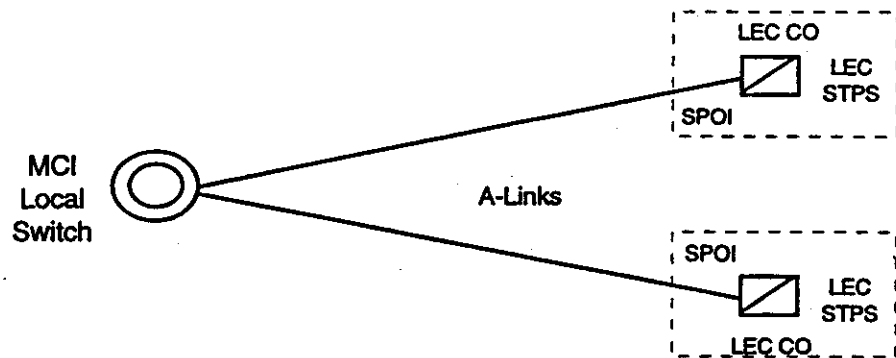


Figure 4. A-Link Interface

12.3.3 The Signaling Point of Interconnection ("SPOI") for each link shall be located at a cross-connect element, such as a DSX-1, in the Central Office where the Bell Atlantic STP is located. There shall be a DS1 or higher rate transport interface at each of the SPOIs. Each signaling link shall appear as a DS0 channel within the DS1 or higher rate interface.

12.4 Message Screening

12.4.1 Bell Atlantic shall set message screening parameters so as to accept messages from MCIIm local or tandem switching systems destined to any signaling point in the Bell Atlantic SS7 network with which the MCIIm switching system has a legitimate signaling relation.

12.4.2 Bell Atlantic shall set message screening parameters so as to accept messages from MCIIm local or tandem switching systems destined to any signaling point or network interconnected to the Bell Atlantic SS7 network with which the MCIIm switching system has a legitimate signaling relation.

12.4.3 Bell Atlantic shall set message screening parameters so as to accept messages destined to an MCIIm local or tandem switching system from any signaling point or network interconnected to the Bell Atlantic SS7 network with which the MCIIm switching system has a legitimate signaling relation.

12.4.4 Bell Atlantic shall set message screening parameters so as to accept and send messages destined to an MCIIm SCP from any signaling point or network interconnected to the Bell Atlantic SS7 network with which the MCIIm SCP has a legitimate signaling relation, provided Bell Atlantic receives proper notification and agreement from the owner of such other networks.

12.5 STP Requirements

12.5.1 Bell Atlantic shall provide MTP and SCCP protocol interfaces in accordance with sections relevant to the MTP or SCCP in the following specifications:

12.5.1.1 Bellcore GR-905-CORE, Issue 1, March 1, Common Channel Signaling Network Interface Specification ("CCSNIS") Supporting Network Interconnection, Message Transfer Part ("MTP"), and Integrated Services Digital Network User Part ("ISDNUP"); and

Section 13. Call Related Databases and AIN

13.1 Definition:

13.1.1 "Call Related Databases" are the Network Elements that provide the functionality for storage of, and access to, information required to route and complete a particular call. Call Related Databases include, but are not limited to: LIDB, Toll Free Number Database, and AIN databases.

13.1.2 A Service Control Point ("SCP") is a specific type of database Network Element deployed in a Signaling System 7 ("SS7") network that executes service application logic in response to SS7 queries sent to it by a switching system also connected to the SS7 network.

13.2 Technical Requirements for Call Related Databases

Requirements for Call Related Databases within this section address storage of information, access to information (e.g., signaling protocols, response times), and administration of information (e.g., provisioning, administration, and maintenance). All Call Related Databases shall be provided to MCI in accordance with the following requirements, except where such a requirement is superseded by specific requirements set forth in Subsections 13.3 through 13.5:

13.2.1 Bell Atlantic shall provide physical interconnection to SCPs through the SS7 network and protocols, as specified in Section 12 of this Attachment, with TCAP as the application layer protocol.

13.2.2 Bell Atlantic shall provide physical interconnection to databases via existing interfaces and industry standard interfaces and protocols (e.g., 56 Kb TCP/IP).

13.2.3 The reliability of interconnection options shall be consistent with requirements for diversity and survivability as specified in Section 12 of this Attachment (which applies to both SS7 and non-SS7 interfaces).

13.2.4 Call Related Database functionality shall be available at Parity. If, based on information available through the process set forth in Section 3, MCIIm believes the functionality is inadequate to meet its needs, it may initiate a BFR.

13.2.5 Bell Atlantic shall complete database transactions (*i.e.*, add, modify, delete) for MCIIm subscriber records stored in Bell Atlantic databases at Parity.

13.2.6 Bell Atlantic shall provide database maintenance consistent with the maintenance requirements as specified in this Agreement (*e.g.*, notification of Bell Atlantic network affecting events, testing).

13.2.7 Bell Atlantic shall provide billing and recording information to track database usage consistent with connectivity billing and recording requirements for Call Related Databases as specified in this Agreement (*e.g.*, recorded message format and content, timeliness of feed, data format and transmission medium).

13.2.8 Bell Atlantic shall provide Call Related Databases in accordance with the physical security requirements specified in this Agreement.

13.2.9 Bell Atlantic shall provide Call Related Databases in accordance with the logical security requirements specified in this Agreement.

13.3 Line Information Database ("LIDB")

This Subsection 13.3 defines and sets forth additional requirements for the Line Information Database. This Subsection 13.3 supplements the requirements of Subsection 13.2 and 13.5.

13.3.1 Definition:

LIDB is a transaction-oriented database accessible through CCS networks. It contains records associated with subscriber line numbers and special billing numbers (in accordance with the requirements in the technical reference in GR-1158-CORE OSSGR, Section 22.3). LIDB accepts queries from other Network Elements, or MCIIm's network, and provides appropriate responses. The query originator need not be the owner of LIDB data. LIDB queries include functions such as screening billed numbers that provides the ability to accept collect or third number billing calls and validation of telephone line number based non-proprietary calling cards. The interface for the LIDB functionality is the interface between the Bell Atlantic CCS network and other CCS networks. LIDB also interfaces to administrative systems. The administrative system interface provides Bell Atlantic work centers with an interface to LIDB for functions such as provisioning, auditing of data, access to LIDB measurements and reports.

13.3.2 Technical Requirements

13.3.2.1 Prior to the availability of a long-term solution for NP, Bell Atlantic shall enable MCIIm to store in Bell Atlantic's LIDB any subscriber line number or special billing number record, (in accordance with the technical reference in GR-1158-CORE OSSGR, Section 22.3) whether ported or not, for which the NPA-NXX or NXX-0/1XX group is supported by that LIDB.

13.3.2.2 Prior to the availability of a long-term solution for NP, Bell Atlantic shall enable MCIIm to store in Bell Atlantic's LIDB any subscriber line number or special billing number (in accordance with the technical reference in GR-1158-CORE OSSGR, Section 22.3) record, whether ported or not, and NPA-NXX and NXX-0/1XX Group Records, belonging to an NPA-NXX or NXX-0/1 XX assigned to MCIIm.

13.3.2.3 Subsequent to the availability of a long-term solution for NP, Bell Atlantic shall enable MCIIm to store in Bell Atlantic's LIDB any subscriber line number or special billing number (in accordance with the technical reference in GR-1158-CORE OSSGR, Section 22.3) record, whether ported or not, regardless of the number's NPA-NXX or NXX-0/1XX.

13.3.2.4 Bell Atlantic shall perform the following LIDB functions (*i.e.*, processing of the following query types as defined in the technical reference in GR-1158-CORE OSSGR, Section 22.3) for MCIIm's subscriber records in LIDB:

13.3.2.4.1 Billed number screening (provides information such as whether the billed number may accept collect or third number billing calls); and

13.3.2.4.2 Calling card validation.

13.3.2.5 Bell Atlantic shall process MCIIm's subscriber records in LIDB at least at Parity with Bell Atlantic subscriber records, with respect to other LIDB functions (as defined in the technical reference in GR-1158-CORE OSSGR, Section 22.3). Bell Atlantic shall indicate to MCIIm what additional functions (if any) are performed by LIDB in Bell Atlantic's network.

13.3.2.6 Within two (2) weeks after a request by MCIIm, Bell Atlantic shall provide MCIIm with a list of the subscriber data items which MCIIm would have to provide in order to support billed number screening and calling card validation. The list shall indicate which data items are

essential to LIDB function, and which are required only to support certain services. For each data item, the list shall show the data formats, the acceptable values of the data item and the meaning of those values.

13.3.2.7 Bell Atlantic shall provide LIDB systems with rates of operating deficiencies at Parity. If, based on information available through the process set forth in Section 3, MCIIm believes that the rate of deficiencies is inadequate to meet its needs, it may initiate a BFR.

13.3.2.8 Bell Atlantic shall provide MCIIm with the capability to provision (e.g., to add, update, and delete) NPA-NXX and NXX-0/1XX group records, and line number and special billing number records, associated with MCIIm subscribers, directly into Bell Atlantic's LIDB provisioning process.

13.3.2.9 As directed by MCIIm or the new local service provider, in the event that end user subscribers change their local service provider, Bell Atlantic shall maintain subscriber data (for line numbers, card numbers, and for any other types of data maintained in LIDB), as mutually agreed by the Parties, so that such subscribers shall not experience any interruption of service, except for any interruption associated with a LIDB-only service order transaction at Parity.

13.3.2.10 All additions and updates of MCIIm data to the LIDB shall be solely at the direction of MCIIm. Bell Atlantic will process orders from other CLECs or from Bell Atlantic for subscribers that choose to migrate from MCIIm to another provider.

13.3.2.11 Bell Atlantic shall provide priority updates to LIDB for MCIIm data upon MCIIm's request (e.g., to support fraud protection) at Parity.

13.3.2.12 Bell Atlantic shall accept queries to LIDB associated with MCIIm subscriber records, and shall return responses in accordance with the requirements of this Section 13.

13.4 Toll Free Number Database

The "Toll Free Number Database" is an SCP that provides functionality necessary for toll free (e.g., 800 and 888) number services by providing routing information and additional features during call set-up in response to queries from SSPs. This Subsection 13.4 supplements the requirements of Subsection 13.2 and 13.5. Bell Atlantic shall provide the Toll Free Number Database in accordance with the following:

13.4.1 Technical Requirements

13.4.1.1 Bell Atlantic shall make the Bell Atlantic Toll Free Number Database available for MCIIm to query, from MCIIm's designated switch including Local Switching, with a toll-free number and originating information.

13.4.1.2 The Toll Free Number Database shall return carrier identification and, where applicable, the queried toll free number, translated numbers and instructions as it would in response to a query from a Bell Atlantic switch.

13.4.2 Interface Requirements

The signaling interface between the MCIIm or other local switch and the Toll Free Number Database shall use the TCAP protocol as specified in Part A, Section 15 (Technical References), together with the signaling network interface as specified in Part A, Section 15 (Technical References).

13.5 Advanced Intelligent Network ("AIN") Access, Service Creation Environment and Service Management System ("SCE/SMS") Advanced Intelligent Network Access

13.5.1 Bell Atlantic shall provide access to any and all Bell Atlantic service applications resident in Bell Atlantic's SCP. Such access may be from MCIIm's switch or Bell Atlantic's unbundled local switch.

13.5.2 SCE/SMS AIN access shall provide MCIIm the ability to create service applications in the Bell Atlantic SCE and deploy those applications via the Bell Atlantic SMS to the Bell Atlantic SCP. This interconnection arrangement shall provide MCIIm access to the Bell Atlantic development environment in a manner at least at Parity with Bell Atlantic's ability to deliver its own AIN-based services. SCE/SMS AIN Access is the creation and provisioning of AIN services in the Bell Atlantic network. See Figure 5 below.

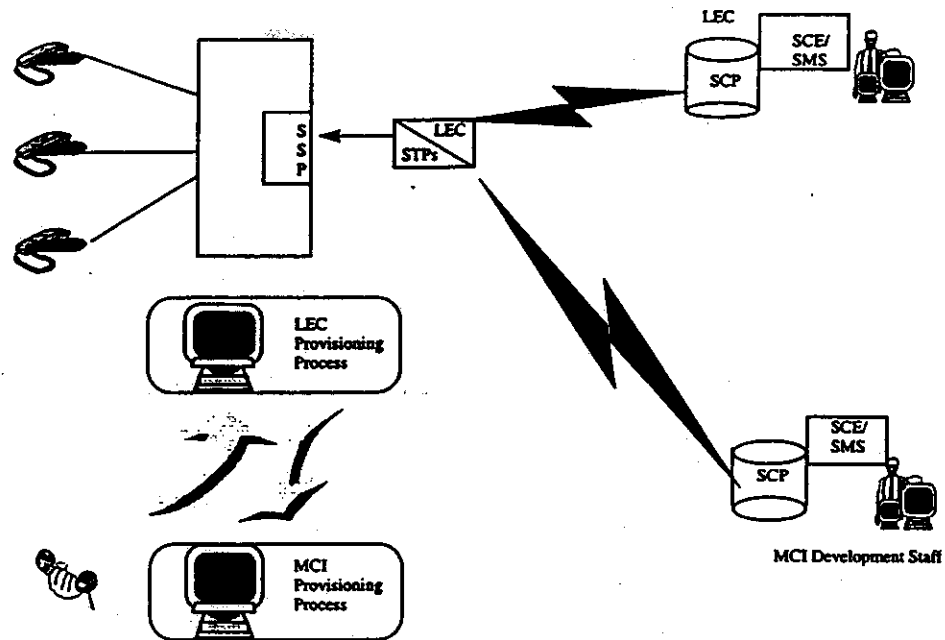


Figure 5

13.5.3 Bell Atlantic shall make SCE hardware, software, testing and technical support (e.g., help desk, system administrator) resources available to MCI. Scheduling of SCE resources shall allow MCI at least equal priority to Bell Atlantic.

13.5.4 The Bell Atlantic SCE/SMS shall allow for multi-user access. Source code (i.e., AIN service applications and process flow design developed by an MCI service designer/creator to provide AIN based services) management and other logical security functions will be provided.

13.5.5 Bell Atlantic shall provide reasonable protection to MCI service logic and data from unauthorized access, execution or other types of compromise.

13.5.6 Bell Atlantic or a designated vendor shall provide for service creation training, documentation, and technical support of MCI development staff at Parity with that provided to Bell Atlantic's own development staff. Training sessions shall be "suitcased" to MCI facilities or delivered at Bell Atlantic facilities at MCI's cost, at MCI's discretion, subject to vendor's requirements.

13.5.7 When MCI selects SCE/SMS AIN access, Bell Atlantic shall provide for a secure, controlled access environment on-site as well as via remote data connections (i.e., ISDN circuit switched data).

13.5.8 When MCIIm selects SCE/SMS AIN access, Bell Atlantic shall allow MCIIm to transfer data forms and/or tables to the Bell Atlantic SCP via the Bell Atlantic SMS (e.g., service customization and subscriber subscription) in a manner consistent with how Bell Atlantic provides that capability to itself.

13.5.9 When MCIIm selects SCE/SMS AIN access for providing services on MCIIm's network, the Parties will work cooperatively to resolve technical and provisioning issues.

Section 14. Tandem Switching

14.1 Definition:

14.1.1 Tandem Switching includes trunk-connect facilities, the basic switching function of connecting trunks to trunks, and the functions that are centralized in tandem switches. Tandem Switching creates a temporary transmission path between interoffice trunks that are interconnected at a Bell Atlantic access tandem switch for the purpose of routing a call or calls.

14.2 Technical Requirements

14.2.1 Tandem Switching shall provide:

14.2.1.1 Signaling to establish a tandem connection;

14.2.1.2 Screening and routing at Parity;

14.2.1.3 To the extent Technically Feasible and at Parity, Tandem Switching shall provide recording of billable events;

14.2.1.4 Tandem Switching shall provide AIN triggers supporting AIN features at Parity with its provision of such triggers for Bell Atlantic subscribers;

14.2.1.5 Bell Atlantic's Tandem Switching shall provide access to toll free and Number Portability databases in the same manner as it provides such access to itself and its Bell Atlantic subscribers;

14.2.1.6 Tandem Switching shall provide all trunk interconnections, where available, in Bell Atlantic's access tandems; and

14.2.1.7 Tandem Switching shall accept connections (including the necessary signaling and trunking interconnections) between end offices, IXCs, ITCs, CAPs and CLEC switches that subtend/interconnect at the same tandem.

14.2.2 Tandem Switching shall provide local tandeming functionality between two End Offices that subtend/interconnect at the same tandem, including two offices belonging to different CLECs (e.g., between an MCIm end office and the end office of another CLEC).

14.2.3 Tandem Switching shall preserve CLASS/LASS features and Caller ID as traffic is processed on SS7 trunk groups at Parity. Additional signaling information and requirements are provided in Section 12.

14.2.4 Bell Atlantic shall perform routine testing and fault isolation on the underlying switch that is providing Tandem Switching and all its interconnections at Parity with its performance of such testing for its own subscriber services. When commonly available, the results of the testing shall be made immediately available to MCIm.

14.2.5 Tandem Switching shall control congestion using capabilities such as automatic congestion control and network routing overflow. Congestion control provided or imposed on MCIm traffic shall be at Parity with controls being provided or imposed on Bell Atlantic traffic for itself and its subscribers.

14.2.6 Tandem Switching shall route calls to Bell Atlantic or MCIm endpoints or platforms for which Tandem Switching is provided. For Tandem Switching with unbundled Common Transport, call routing including overflow is accomplished as Bell Atlantic's network normally routes the calls. For Tandem Switching with unbundled Dedicated Transport, specific routing may be requested through the BFR process.

14.2.7 Tandem Switching shall process originating toll-free traffic received from an MCIm local switch.

14.2.8 In support of AIN triggers and features, Tandem Switching shall provide SSP capabilities at Parity with Bell Atlantic's provision of these capabilities for its own subscribers under the same circumstances when these capabilities are not available from Local Switching.

14.2.9 The Local Switching and Tandem Switching functions may be combined in an office. If this is done, both Local Switching and Tandem Switching shall provide all of the functionality required of each of those Network Elements in this Agreement.

14.3 Interface Requirements

14.3.1 Tandem Switching shall interconnect, with direct trunks, to all carriers with which Bell Atlantic interconnects.

14.3.1.1 Transit traffic that is originated by an ITC or wireless carrier shall be settled in accordance with the terms of an appropriate IntraLATA Telecommunications Services Settlement Agreement between the Parties substantially in the form appended hereto as Exhibit H. Meet-Point Billing compensation arrangements as described in Section 3 of Attachment VIII shall be utilized for compensation for the joint handling of toll traffic.

14.3.1.2 Bell Atlantic expects that most networks involved in transit traffic will deliver each call to each involved network with CCS and the appropriate TCAP message to facilitate full interoperability of those services supported by Bell Atlantic and billing functions. In all cases, each Party shall follow the Exchange Message Record ("EMR") standard and exchange records between the Parties and with the terminating carrier to facilitate the billing process to the originating network.

14.3.1.3 Transit traffic to and from MCIIm shall be routed over the traffic exchange trunks.

14.3.2 Bell Atlantic shall provide signaling necessary to provide Tandem Switching with feature functionality impacts and effects at Parity.

Section 15. Additional Requirements

This Section 15 of Attachment III sets forth the additional requirements for Network Elements which Bell Atlantic agrees to offer to MCIIm under this Agreement.

15.1 Cooperative Testing

15.1.1 Definition:

"Cooperative Testing" means that both Bell Atlantic and MCIIm shall cooperate with reasonable requests from the other to (i) ensure that the Network Elements and ancillary functions and additional requirements being provided to MCIIm by Bell Atlantic are in compliance with the requirements of this Agreement, (ii) test the overall functionality of various Network Elements and ancillary functions provided by Bell Atlantic to MCIIm in Combination with each other or in Combination with other equipment and facilities provided by MCIIm or third-parties, (iii) test the overall functionality of services provided by third-parties involving or combining Network Elements provided by Bell Atlantic and services provided by MCIIm, and (iv) ensure that billing data can be provided to MCIIm and Bell Atlantic.

15.1.2 Requirements

Within forty-five (45) days after the Effective Date of this Agreement, MCI and Bell Atlantic will agree upon a process to resolve technical issues relating to interconnection of MCI's network to Bell Atlantic's network and Network Elements and ancillary functions. The agreed upon process shall include procedures for escalating disputes and unresolved issues up through higher levels of each Party's management. If MCI and Bell Atlantic do not reach agreement on such a process within forty-five (45) days, any issues that have not been resolved by the Parties with respect to such process shall be submitted to the procedures set forth in Part A, Section 24 (Dispute Resolution Procedures) of this Agreement unless both Parties agree to extend the time to reach agreement on such issues.

15.1.2.1 Where mutually agreed (*e.g.*, POT bays in the common area associated with physical Collocation), Bell Atlantic shall provide MCI access for testing MCI facilities at interfaces between a Bell Atlantic Network Element, or at interfaces between a Bell Atlantic Combination, and MCI equipment or facilities. This access shall be available seven (7) days per week, twenty-four (24) hours per day.

15.1.2.2 When mutually agreed, Bell Atlantic shall temporarily provision MCI designated Local Switching features (*e.g.*, customized routing) for testing. MCI and Bell Atlantic shall mutually agree on the procedures to be established between Bell Atlantic and MCI to expedite such provisioning processes for feature testing.

15.1.2.3 Upon reasonable request, Bell Atlantic and MCI shall provide technical staff to meet with each other to provide required support for Cooperative Testing.

15.1.2.4 Dedicated Transport and ULL may experience alarm conditions due to in-progress tests. When an entire Bell Atlantic facility is dedicated to MCI services, Bell Atlantic shall not remove such facility from service without obtaining MCI's prior approval.

15.1.2.5 Bell Atlantic shall provide to MCI electronic access to 105 type responders, 100-type test lines, or 102-type test lines associated with any circuits under test.

15.1.2.6 MCI and Bell Atlantic shall endeavor to complete Cooperative Testing as stated in Attachment VIII.

15.1.2.7 MCI may accept or reject the Network Element ordered by MCI if, upon completion of cooperative acceptance testing, the tested

Network Element does not meet the requirements stated in applicable technical references included in Appendix 1 (Technical Reference Schedule) of Part A.

15.2 Protection, Restoration, and Disaster Recovery

15.2.1 Scope

This Section refers specifically to requirements on the use of redundant network equipment and facilities for protection, restoration, and disaster recovery.

15.2.2 Requirements

15.2.2.1 Bell Atlantic shall provide protection, restoration, and disaster recovery capabilities at Parity with those capabilities provided for their own services, facilities and equipment (*e.g.*, equivalent circuit pack protection ratios, facility protection ratios).

15.2.2.2 Bell Atlantic shall provide Network Elements equal priority in protection, restoration, and disaster recovery as provided to their own services, facilities and equipment.

15.2.2.3 Bell Atlantic shall provide Network Elements equal priority in the use of spare equipment and facilities as provided to their own services, facilities and equipment.

15.2.2.4 Bell Atlantic shall restore Network Elements which are specific to MCI end user subscribers on a priority basis as MCI may designate at Parity.

15.3 Synchronization

15.3.1 Definition:

"Synchronization" is the function which keeps all digital equipment in a communications network operating at the same average frequency. With respect to digital transmission, information is coded into discrete pulses. When these pulses are transmitted through a digital communications network, all synchronous Network Elements are traceable to a stable and accurate timing source. Network synchronization is accomplished by timing all synchronous Network Elements in the network to a stratum 1 source so that transmission from these network points have the same average line rate.

15.3.2 Technical Requirements

The following requirements are applicable to the case where Bell Atlantic provides synchronization services to equipment that MCI owns and operates within a Bell Atlantic location. In addition, these requirements apply to synchronous equipment that is owned by Bell Atlantic and is used to provide a Network Element to MCI. Synchronization services by Bell Atlantic shall be subject to rates and charges to be determined.

15.3.2.1 The synchronization of clocks within digital networks is divided into two parts: intra-building and inter-building. Within a building, a single clock is designated as the building integrated timing supply ("BITS"), which provides all of the DS1 and DS0 synchronization references required by other clocks in such building. This is referred to as intra-building synchronization. The BITS receives synchronization references from remotely located BITS. Synchronization of BITS between buildings is referred to as inter-building synchronization.

15.3.2.2 To implement a network synchronization plan, clocks within digital networks are divided into four stratum levels. All clocks in strata 2, 3, and 4 are synchronized to a stratum 1 clock, that is, they are traceable to a stratum 1 clock. A traceable reference is a reference that can be traced back through some number of clocks to a stratum 1 source. Clocks in different strata are distinguished by their free running accuracy or by their stability during trouble conditions such as the loss of all synchronization references.

15.3.2.2.1 Intra-Building

15.3.2.2.1.1 Within a building, there may be different kinds of equipment that require synchronization at the DS1 and DS0 rates. Synchronization at the DS1 rate is accomplished by the frequency synchronizing presence of buffer stores at various DS1 transmission interfaces. Synchronization at the DS0 rate is accomplished by using a composite clock signal that phase synchronizes the clocks. Equipment requiring DS0 synchronization frequently does not have adequate buffer storage to accommodate the phase variations among different equipment. Control of phase variations to an acceptable level is accomplished by externally timing all interconnecting DS0 circuits to a single clock source and by limiting the interconnection of DS0 equipment to less than 1,500 cable feet. Therefore, a BITS shall provide DS1 and composite clock signals when the appropriate composite signal is a 64-kHz 5/8th duty

cycle, return to zero with a bipolar violation every eighth pulse ("B8RZ").

15.3.2.2.2 Inter-Building

15.3.2.2.2.1 Bell Atlantic shall provide inter-building synchronization at the DS1 rate, and the BITS shall accept the primary and secondary synchronization links from BITS in other buildings. From hierarchical considerations, the BITS shall be the highest stratum clock within the building and Bell Atlantic shall provide operations capabilities (this includes, but is not limited to: synchronization reference provisioning; synchronization reference status inquiries; timing mode status inquiries; and alarm conditions).

15.3.3 Synchronization Distribution Requirements

15.3.3.1 Central Office BITS shall contain redundant clocks meeting or exceeding the requirements for a stratum 3 enhanced clock as specified in ANSI T1.101-1994 and Bellcore *GR-1244 Clocks for the Synchronized Network: Common Genetic Criteria*.

15.3.3.2 Central Office BITS shall be powered by primary and backup power sources.

15.3.3.3 If both reference inputs to the BITS are interrupted or in a degraded mode (meaning off frequency greater than twice the minimum accuracy of the BITS, loss of frame, excessive bit errors, or in alarm indication signal), then the stratum clock in the BITS shall provide the necessary bridge in timing to allow the network to operate without a frame repetition or deletion (slip free) with better performance than 1 frame repetition or deletion (slip) per week.

15.3.3.4 DS1s multiplexed into a SONET synchronous payload envelope within an STS-n (where n is defined in ANSI T1.105-1995) signal shall not be used as reference facilities for network synchronization.

15.3.3.5 The total number of Network Elements cascaded from the stratum 1 source shall be minimized.

15.3.3.6 A Network Element shall receive the synchronization reference signal only from another Network Element that contains a clock of equivalent or superior quality (stratum level).

15.3.3.7 Bell Atlantic shall select for synchronization those facilities shown to have the greatest degree of availability (absence of outages).

15.3.3.8 Where possible, all primary and secondary synchronization facilities shall be physically diverse (this means the maximum feasible physical separation of synchronization equipment and cabling).

15.3.3.9 No timing loops shall be formed in any combination of primary and secondary facilities.

15.3.3.10 An operations support system ("OSS") shall continuously monitor the BITS for synchronization related failures or degradation.

15.3.3.11 An OSS shall continuously monitor all equipment transporting synchronization facilities for synchronization related failures or degradation.

15.3.3.12 For non-SONET equipment, Bell Atlantic shall provide synchronization facilities which, at a minimum, comply with the standards set forth in ANSI T1.101-1994.

15.3.3.13 All equipment approved for deployment in Bell Atlantic's network shall meet Bellcore GR-253 and GR-1244 requirements.

Section 16. Basic 911 and E911

See Attachment VIII, Section 6.1.1.

Section 17. Directory Assistance Data

See Attachment VIII, Section 6.1.6, and Section 6.2.